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Improving Ride Comfort of a Bus Using Fuzzy Logic Controlled Suspension

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Abstract : In this study an active controller is presented for vibration suppression of a full-bus model. The bus is modelled having seven degrees of freedom. Using the achieved model via Lagrange Equations the system equations of motion are derived. The suspensions of the bus model include air springs with two auxiliary chambers are used. Fuzzy logic controller is used to improve the ride comfort. The numerical results, verifies that the presented fuzzy logic controller improves the ride comfort.

Keywords : ride comfort, air spring, bus, fuzzy logic controller
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